DRAWING AMENDMENTS

Replacement sheets 1 and 4 of the drawings are submitted herewith. In the replacement sheets, FIGS. 1A, 1B, 4A and 4B are designated prior art.

REMARKS

Claims 18-31 stand rejected under 35 USC 102 over Buckley et al. Claims 1-17 stand rejected under 35 USC 103 over Lin et al in view of Buckley et al

The independent claims 18, 21, 24, 26 and 29 have been amended to emphasize distinctions over Buckley as below.

Buckley et al discloses a general purpose computer 100 (see FIG. 2) which generates print data employing a plurality of printer drivers (col 7, line 33) stored in the printer driver memory portion 134 of the computer memory 130. Buckley et al discloses that the rendering options to be used to render a particular document are selected by the user (col 2, lines 42 and 44, 52) through an input device 150 by selecting a virtual printer appropriate to the desired rendering options (see col 2, lines 40-45). The user interface (see FIG. 1) disclosed by Buckley et al is rendered by the general purpose computer 100 to a display device 160. The general purpose computer 100 (see FIG. 2) is not a printer (310) nor is it a print server (200). The general purpose computer 100 does not include one or more of a rendering engine, a marking engine, an output engine, a printer engine, or a printer controller. Buckley et al does not disclose or suggest that the printer (310) or the print server (200) renders documents with different sets of rendering parameters.

Buckley et al suggests that if content to be rendered is composed of several distinct image objects (graphics, text and photographic images, for example) or document types, the user may select a set of rendering options provided by the user interface (see FIG. 1) contained in a printer driver (see FIG. 2, 134) stored in memory portion (136, 138, 130) of the general purpose computer 100, the set of rendering options being associated with different virtual printers (col 2, lines 39-42) and thus being device dependent. As an example the described UI for the multiple printer drivers must first be installed in the general purpose computer. Applicant's FIG. 1A (prior art) corresponds broadly to the disclosure of Buckley et al. The information apparatus of the applicant corresponds broadly to Buckley et al's disclosure of a general purpose computer 100. The applicant's description of prior art raster image processing (110) and creating device dependent output data (120) corresponds broadly to Buckley et al's method of rendering document at the general purpose computer 100.

Buckley et al does not disclose or suggest a method of generating a device independent data from the general purpose computer 100. The print data generated from the UI accordingly is specific to a specifically user selected virtual printer or virtual printer model.

Buckley et al discloses that the printer driver "converts the currently opened document into printer data and printer control commands and outputs the printer data and printer control commands...to the currently selected meta printer 300 or 310." See column 7, lines 13-20. Thus, Buckley et al does not disclose or suggest that the general purpose computer 100 supplies device independent intermediate output data to the printer server 200 or that any component of the printer server 200 or printers 300, 310 retrieves image data from intermediate output data.

In accordance with applicant's independent claims, the intermediate output data that is provided by the information apparatus includes image data, and the image data is retrieved from the intermediate output data. Further, referring to claims 1, 18 and 24, the image processing operation at the output device or the output system utilizes parameters related to the output device or the output system with which an output controller or the printer controller is associated.

Buckley et al does not disclose or suggest that the general purpose computer 100 or the disclosed UI (FIG. 3, 4, 5, 6) discovers an output device over a local area network. It is important to note that in Buckley et al, each virtual printer or its associated printer model is pre-installed, and stored in the general purpose computer. They are not obtained or retrieved from the local area network. Further in Buckley et al the selection step of the printer model that contains the parameters is based on user input and selection. It is not based on or related to discovered output devices nor does it suggest any method of automatic selection.

In view of the above background information, independent claim 18 has been amended to emphasize that:

1. The output system is a distinct device from the information apparatus.

2. The standard rasterization parameters are output device independent and unlike Buckley et al do not correspond to a specific output device or virtual printer model.

3. The rasterization parameters contained in the information apparatus are device independent, not device dependent or specific as disclosed by Buckley et al.

4. The output system converts the device independent output data to device dependent data, not on the general purpose computer or information apparatus.

Independent claim 21 has been amended to add the step of discovering an output device and the selection step has been amended to refer to selecting from the discovered output device(s).

Independent claim 24 has been amended to emphasize that the intermediate output data is device independent.

Independent claim 26 has been amended to add the mean for discovering an output device and that the propagation medium is wireless.

Independent claim 29 has been amended to emphasize that an output device profile or object is received at the information apparatus.

In independent claim 29, it is important to note that Step (b) has been amended to emphasize that the output device profile is not previously stored or installed in the information apparatus and therefore it is not "inherent" as suggest by the examiner. The output device profile is received from the output device. The determining step for a match to the output device is based on the output device profile, not based on user input selection.

Referring to the rejection of claims 1-17, Lin et al describes an image processing pipeline (FIG. 1 of Lin et al) of a conventional copier machine (comparable to the devices 420A, 420B shown in FIG. 4A, 4B, 5A or 5B of the present application). The image processor unit 20, which is located inside an output device such as a conventional xerographic print engine (e.g. copier printer engine), segments the image employing MRC.

Lin et al's disclosure relates to a segmentation method, module 60 (FIG. 2) which is employed to improve compression results (Para 5, 6 and 7), not for universal data output. The image processing unit (52) includes both a compression module (60) and a decompression module (68) under the same unit. The processing unit (52) is controlled under the same processor or control module (62) which manages both compression (60) and decompression (68) modules. Compression (encoding) and decompression (decoding) in Lin et al occur

in the same processor or device, not on distinct devices. Lin et al does not suggest or disclose how compression (encoding) in an information apparatus and decempression in a distinct output device can occur or function in the disclosed image processing unit within a copier machine (see FIGS. 1 and 2).

According to FIG. 2 of Lin et al, the decompression unit (68) is connected to a device dependent print engine (58). The same output from the decompression unit is also connected to a network (56) as well. It is important to note that if the copier engine as described outputs to a device dependent print engine, it is device dependent. Lin et al does not disclose or suggest a device independent output data that outputs from a compression module (68) nor does Lin et al suggest a method with which the decompression module is capable of generating both device independent data and device dependent data.

Buckley et al discloses generation of device dependent data from a general purpose computer or information apparatus. Lin et al discloses an output device such as a copier. The two disclosures are distinct devices and cannot properly be combined. In any manner, Buckley et al discloses only how to generate a device dependent output data, and consequently combining Buckley et al and Lin et al can only generate device dependent data.

Furthermore, in Lin et al, FIG. 2, the content is processed inside the image processor unit 20 and in an output device supplying print data to a printer engine. It would not be feasible to use the image processor unit of Lin et al in an information apparatus to generate a more device independent intermediate output data.

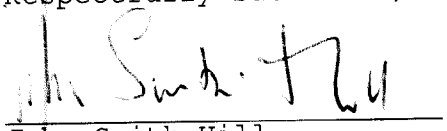
Lin et al does not disclose that the image processing unit is capable of discovering an output device in a local area network and generating image data based on rendering parameters that are independent of the output device.

Accordingly, claim 1 has been amended to emphasize the above differences.

In view of the foregoing, applicant submits that the invention as defined in the independent claims 1, 18, 21, 24, 26 and 27 is not disclosed or suggested by Buckley et al and Lin et al, whether taken singly or in combination. Accordingly, claims 1, 18, 21, 24, 26 and

27 are patentable and it follows that the dependent claims also are patentable.

Respectfully submitted,



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